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**Brand Ownership as a Central Component of Adolescent Self-esteem: The
Development of A New Self-Esteem Scale**

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Abstract

This paper outlines the development of a new scale to measure adolescent self-esteem. The new scale addresses weaknesses in existing measures which have failed to consider the growth of the consumer society in the western world and the impact of this on the formation of adolescent self-esteem. The development of this scale includes extensive qualitative research with over 100 high school pupils, which led to a series of quantitative data collection and analysis processes to develop the scale. In the final stage, data was collected from 889 pupils and analysed to confirm the validity and reliability of the new measure. The result of this work is a 21 item self-esteem scale comprising of 4 distinct, yet interrelated factors: self-evaluation; social ability; social comparison effects and notably, brand ownership. The findings provide an updated and upgraded measure of self-esteem which takes into consideration the specific audience of adolescents living in a consumer culture. The scale development process demonstrates that when considering the formation of self-esteem, the influence of the use and possession of commercial brands is as relevant as the traditional factors/components such as academic achievement or sporting prowess.

Keywords

Adolescent self-esteem; measuring; scale development; brand ownership.

Introduction: Consumption and Self-esteem

This paper outlines the development of a new measure of adolescent¹ self-esteem. Its purpose is to produce a valid, reliable and usable self-esteem scale which incorporates the central role of material possessions and brands in the lives of adolescents. The scale development process is based on a sample of British adolescents and through the process of developing the scale, the paper seeks to gain an in-depth understanding of the meaning and role of brands in the lives of British adolescents; specifically in terms of their social and psychological identity and self-esteem development.

Self-esteem remains an important psychological construct and as far as young people are concerned, one that we should be paying attention to. One of the biggest concerns according to UK Charity the National Society for the Prevention of Cruelty to Children (NSPCC) is low self-esteem amongst adolescents (NSPCC, 2015). When the charity set up its Childline telephone helpline in 1986, children's top concerns were sexual abuse, family problems, physical abuse and pregnancy. In 2015 four of the top ten issues, account for almost one third of total concerns. These are low self-esteem/unhappiness, self-harm, suicidal feelings and mental health/depressive disorders. Overall, 35,244 of the counselling sessions held by the NSPCC-run service in 2014/15 were related to low self-esteem and unhappiness, a 9 per cent increase on the previous year.

¹ For the purposes of this paper, adolescents are classed as being between the age of 13- 16. References to the consumer society refer to the broad environmental and social context of the British population. Statements regarding consumer society, materialism etc., are referring to the commonly referred to 'Western Societies' of developed countries in Europe and USA; the paper does not claim that materialism and consumerism occurs in the same manner across different contexts and cultures.

Research on the impacts of social media illustrates clearly how significant fears of social comparison are, and indeed how these fears are being heightened in the digital age. For example, a lack of likes on Facebook can seriously impact self-esteem (Steers, et al 2014; Steers 2016) and may be elevating self-esteem problems to a previously unheralded level. Individuals believe that increased Facebook use will satisfy their relatedness needs and this will result in greater well-being. If one relates the social nature of Facebook to the visibility of branded clothing, it seems logical that the effects of owning and receiving recognition for owning brands could be comparable to receiving Facebook likes.

There is a body of recent work that relates self-esteem to consumption behaviour. Quoquab et al (2015) tell us that low self-esteem works as both an antecedent and as a consequence of compulsive buying. The potential harmful effect of consumption is highlighted, particularly amongst young people. Specifically, the notion of symbolic self-completion (Wicklund & Gollwitzer, 1982) is noted as a potentially damaging consequence of consumerism; this is whereby individuals use brands to fill the gap between their 'actual self' and the 'desired self'. According to the self-completion theory, a gap between the two states will result in lowered self-esteem and thus there is potential for the individual to keep attempting to bridge this gap by more consumption. In addition, there is a wealth of literature which demonstrates that people attempt to make up for their perceived deficits and try to enhance their self-esteem through consumption, for example Karanika & Hogg (2015); Yurchisin et al, (2006); Gao et al, (2009); Sivanthan & Pettit, (2010). Indeed, Mick & DeMoss (1990)

state that rewarding ourselves with self-gifts can enhance self-worth, an important component of self-esteem. This is empirically supported by research by Truong & McColl (2011).

Consumerism and consumer culture has invaded the lives of young people and children seek to define themselves through the acquisition of branded goods (Hill, 2015). Holbrook (2014) describes in detail the penetration of brands and branding into every level of consumer society. He discusses the commodification of celebrity culture and how the over commercialism of this may affect young consumers.

A recent Ipsos Mori/UNICEF (2011) report investigated why children's wellbeing in the UK was the lowest of 20 OECD nations researched (UNICEF, 2007). This research found that "the symbolic use of brands either to confer superior status or to avoid bullying" (pg. 2) was one of the most problematic findings. The report found that parents in the UK often buy their children brands for their symbolic benefits, to protect them from negative associations and consequences. Clearly, this is a society where brands can be directly related to well-being and self-esteem.

Ipsos Mori/UNICEF found that "In the UK and Sweden high status brands tended to be more important to children from less affluent backgrounds, presumably as a means of masking financial and social insecurities and bolstering self-esteem" (pg. 3). This reinforces the work of Sivathan & Pettit (2010) who discuss how low income consumers have lower self-esteem and this drives their willingness to purchase higher status goods. Previous research on this topic, has led to the development of a model of adolescent consumer behaviour (Isaksen & Roper, 2008). The model is referred to as the 'Vicious Cycle' model and clearly illustrates

that the psychological characteristics which make teenagers susceptible to consumerism and materialism, are continually reinforced by the consequences of it. For example, because they strive for social acceptance, teenagers are highly susceptible to interpersonal consumption influences which increase their want/need for material possessions and detract from personal fulfilment. This shift in focus results in lowered self-concept clarity and self-worth which once again leads them to be more susceptible to consumer influence; a vicious cycle exists. Furthermore, due to specific psychological characteristics, and their restricted consumption opportunities, low-income adolescents are thought to experience magnified and more severe consequences of this consumer culture and hence the vicious cycle it brings with it. So, the vicious cycle model highlights the interaction between brands, consumption and self-esteem. The purpose of this paper is to develop a scale that will allow these relationships to be clearly measured.

Considerable work has previously been conducted into the concept of self-esteem. However, much of this work continues to measure self-esteem using scales which do not consider the possible impacts of the consumer society that we are living in. The various impacts of the current consumer society are perhaps most keenly felt by adolescents. Adolescents typically have less privacy than adults; they are more driven by social inclusion and are less able to remove themselves from others. As such, adolescents' consumption choices are subject to far closer and more constant scrutiny than the average adult consumer. This becomes instantly clear when one thinks of the school yard environment and the amount of public scrutiny that this

environment places upon the individual. In addition, the explosion of social media (as discussed above) has increased this scrutiny to new heights.

Adolescents are an extremely lucrative target market for organisations and therefore they are highly targeted; indeed the UK teenage market has been estimated to be worth over £53 billion by 2017 (Cochrane, 2013). The social and psychological life-stage of adolescents plays a strong role in their susceptibility to marketing and consumer influences, and hence makes them an appropriate target (see for example Isaksen & Roper, 2008; Malar et al., 2011 and Piacentini & Mailer, 2004). Whereas much work has been conducted on uncovering the most effective means and ways in which to sell to adolescents, less work has demonstrated what the impacts are on adolescent self-esteem.

A large number of measures of self-esteem exist (Scheff et al., 1989) and a common weakness amongst them is that they are often not developed with the actual respondents in mind; in terms of their age, opinions, nationalities, life-stage and social circumstances. For example, there is currently no self-esteem scale which incorporates material possessions and brands in considering adolescent self-esteem. This is indeed surprising considering the central role that brands now play in shaping and expressing teenage identity, both anecdotally and according to the literature. Indeed there has been no new self-esteem scale since the single item measure provided by Robins et al, (1991).

In addition, this paper highlights and seeks to contribute to the scale-development and psychological research literature by highlighting the need to carefully consider

the selection of and use of appropriate scales for research on psychological constructs. As will be outlined, the simple fact that a scale is 'well established' and/or frequently cited does not mean that it is appropriate for the particular sample, context and construct that the research is seeking to address. Specifically, this paper highlights the need for rigorous and inclusive scale development processes which take in to consideration the specific language, opinions, perceptions and understandings of the sample.

In order to contextualize the development of the new scale for adolescent self-esteem, this paper will critically assesses the efficacy and suitability of some of the most popular self-esteem measures used in psychology and indeed marketing studies. The assessment will highlight the strengths and weaknesses of these existing scales (and their development methodology) which will clarify the need for the development of a new measure. Finally, the rigorous methodology and various stages used to develop this new scale will be presented in detail.

The measurement of self-esteem

There are a large number of self-esteem scales (Scheff et al., 1989) but as Burns (1979) notes; there remains a lack of a satisfactory, easily administered and theoretically sound measure. In light of this therefore, Robinson et al., (1991) correctly point out that new measures must provide clear benefits and improvements over existing scales. For this reason, in preparation of the scale development process, the popular, existing scales are critically analysed in order to understand their strengths and weaknesses and to determine what is lacking. Thus, in order to

gain a well-rounded view of various measurement styles, the following section will review two popular unidimensional measures and two multidimensional measures of self-esteem.

Rosenberg's (1965) Self-Esteem Scale (RSES) is a very popular unidimensional measure that is widely used and has become a benchmark for the measurement of self-esteem. The RSES was originally designed as a straightforward measure of adolescents' feelings of self-worth which takes into account the social development of the self. The scale consists of a series of 10 statements about the self (for example, "I take a positive attitude towards myself") and respondents are asked to mark- on a four point likert scale, ranging from strongly agree to strongly disagree how much the statement applies to them. The scores range from 0-30 with higher scores indicating higher levels of self-esteem. The RSES has shown to be related to low self-regard, anxiety, depression, materialism, social inclusion and self-concept clarity. However, despite the above evidence, the efficacy of the RSES has been called to question for a number of reasons. For example, it is claimed that the scale is too face valid and hence is prone to socially desirable responses (Blascovich & Tomaka, 1991). To illustrate, one of the scale item reads "All in all I am inclined to feel that I am a failure". Such a statement is not socially desirable and thus – especially amongst insecure adolescents may activate self-enhancing strategies and as a result, scores may exhibit defensive, rather than true self-esteem. However, despite this, Blascovich & Tomaka (1991) found that RSES score distributions had a tendency to be negatively skewed; participants appeared to have low self-esteem

when in fact it was relatively high. This discrepancy in findings does not support the consistency of the scale.

Furthermore, the RSES was created nearly 50 years ago, on an American sample; the context and specific facets of self-esteem for this sample have surely changed drastically, in comparison to, for example British adolescents in 2016. For example, the scale fails to consider physical appearance, a particularly central tenant in the lives of teenagers today. Indeed, Hoare et al., (1993) found physical attractiveness to be strongly related to global self-esteem. This restates Blyth & Traeger's (1983) argument about the importance of the awareness of the changes to the bases of self-esteem when it is being assessed. It seems that in the case of self-esteem measurement, convention and ease of use has overshadowed the importance of the sensitivity of the measure.

Coopersmith's Self-Esteem Inventory (SEI) is thought to be the second most popular unidimensional self-esteem measure (Blacovich & Tomaka, 1991); the common dimensions of social environments, academic abilities and psychological centrality are considered. The original scale consisted of 50 descriptive statements worded in the first person; each item reflects either high or low self-esteem, and respondents are asked to mark whether the statements are 'like me' or 'unlike me'. However, despite the claimed unidimensional nature of SEI, Ahmed et al., (1985) performed a factor analysis of the SEI and found four separate factors: view of life, family relations, tolerance and confusion and sociability. Furthermore, various, later reports claim that the SEI consists of 4, 9 or even 10 factors (Blascovich & Tomaka, 1991).

Harter's Self-perception Profile (1988) is multidimensional and includes a set of 9 distinct dimensions; scholastic competence, social acceptance, athletic competence, physical appearance, behavioural conduct, job competence, romantic appeal, close friendship and a final domain of global self-worth. The Harter (1988) self-perception profile for adolescents (SPPA) is a revision and expansion of the original Self-perception profile. Each of the domains is assessed with 5 scale items (45 in total). The SPPA employs a 'structured alternative format' as a response scale. That is, by presenting both the negative and positive alternatives, the questions imply that both are common and acceptable and thus make it less likely for respondents to assume that only the positive is tolerable (Eiser et al, 1995).

Although there is support for the use of the Harter scale for the Scottish sample used, Eiser et al., (1995) state that "Unfortunately, Harter (1985) did not provide an independent assessment of self-esteem so that the construct validity of the questionnaire is not known" (pg. 20).

Another multidimensional measure is the **Tennessee Self-Concept Scale (TSCS, Fitts, 1965)** which includes both global and specific facets of self-esteem. Due to its simplicity it has been a popular scale as of the late 60s. The score for global self-esteem in the TSCS is calculated by summing the scores for each of the 100 scale items. This may prove problematic as the psychological centrality of, or emphasis placed on any single domain will vary between age groups, cultures and nationalities. Furthermore, the distinction between self-concept and self-esteem is not obvious in the TSCS. That is, the fact that self-*descriptive* items are added to

produce a self-*evaluative* rating, fails to recognise the presence of defensive representations of the self.

The need for a new scale to measure self-esteem amongst adolescents

Social Desirability

Social Desirability Bias (SDB) is a common concern in scale development and the need to measure it has been highlighted by several authors (e.g. Mick, 1996, Nunnally & Bernstein, 1994). Moreover, the need for the detection of SDB is specifically important in those scales which are likely to have socially acceptable/desirable answers. In relation to self-esteem, there appears to be a general conception that low self-esteem is an undesirable trait (Blascovich & Tomaka, 1991) and hence respondents of self-esteem measures can be motivated to present themselves as having (false) high self-esteem.

Furthermore, when considering respondents who are likely to be socially motivated (for example adolescents), the issue of social desirability increases further (Greig et al., 2007); as a result the risk of assessing defensive self-esteem in adolescents is much higher than amongst adults. For example, the RSES and SEI provided examples of scale items which are direct, self-evaluative and introspective questions which can be considered to be excessively face valid. Therefore this paper argues that such existing scales are simply too obvious for the shrewd modern youth. As a means to correct this, the likelihood of SDB in scale scores can be reduced by creating scale items which are less face valid and present *indirect* signals of self-esteem. It is important however, that the specific questions asked, must be relevant to the culture and population being studied. For this reason, the suitability of the

response scale must be determined not by the scale developer themselves, but together potential respondents; they are after all, the experts.

Park & Roedder John (2010) differentiate between explicit self-esteem and the lesser discussed implicit self-esteem in determining materialism. "Explicit self-esteem is defined as the intentionally and consciously reasoned evaluations of the self, whereas implicit self-esteem is defined as highly efficient evaluations of the self-occurring spontaneously and outside of awareness or control" (pg. 73). The paper reinforces the need for a new scale, and one that investigates self-esteem from a less obvious, less explicit stance than existing scales. Park & Roedder John also describe how existing research explains that low self-esteem is highly correlated with increased materialism and the greater difference between the explicit and implicit forms of esteem, the greater the propensity for materialism.

Context

Societal trends can impact significantly on the assessment of self-esteem. Indeed, this is a main criticism in the applicability of popular self-esteem scales such as the RSES, SEI, TSCS and SPPA. All of these scales, including Savin-Williams & Jaquish's (1981) alternative observational measures, were created between 1965 and 1988. Thus the fact that investigations assessing self-esteem in the 21st century are still employing these scales is surprising. Certainly, brands and appearance, superficial as it may seem, have never been more important. This paper argues that the growth of the consumer culture needs to be investigated in relation to the specific bases of self-esteem formation amongst adolescents. However, despite the numerous existing self-esteem scales, none seem to consider the dimensions which are likely to be

relevant, specifically, to today's adolescents; possibly because such a sample are not included in the development of previous scales.

Reliability

It is not only important to ensure that the dimensions of a self-esteem scale are relevant to the context and population of the respondents, but in terms of the reliability of the scale, it is also important to ensure that the factor structure of any scale remains stable. Several 'rounds' of data collection will help to determine the most stable and applicable factor structure within a scale. The assessment of construct validity in a scale is vital. For example, in her Self Perception Profile, Harter (1985, 1988) did not compare the results of her measure with any other established measure of self-esteem. Campbell (1990) noted that "self-esteem is not an isolated trait, but one that is correlated with a number of other personality traits" (pg. 539) and therefore, measuring self-concept clarity and other such personality traits provides a good indication as to whether a self-esteem measure is truly measuring self-esteem.

It is clear that there is a need for a scale which considers self-esteem in the current and updated context for which it will be used. With regards to adolescent materialism the current context refers to British adolescents from various socioeconomic backgrounds, living in a culture of consumption. The socially constructed nature of self-esteem must be acknowledged and hence consideration given to societal changes when measuring it. As outlined in the next section, a new scale to measure British adolescents' self-esteem will contribute to a deeper

understanding of the impacts of consumerism and brand culture on contemporary childhood.

The importance of possessions and branded goods in the measurement of self-esteem

The work linking the self and the extended self to material possessions is well defined. Belk (1988) conducted the major work on the extension of the self, and showed that we regard our possessions as part of ourselves and argued that “we are what we have and possess.” Roberts, Monolis & Pullig (2014) discuss contingent self-esteem (CSE) that is esteem related to social comparison and found that CSE affects compulsive purchasing when moderated by the fear of negative evaluation. Rhee & Johnson (2011) investigated how adolescents’ self-concept and its congruence with a brand’s image are ultimately related to their brand preference. They examined whether adolescents’ level of liking for a clothing brand was related to the similarity between the clothing brand image and three different constructs of self-concept: actual (i.e. who I am), ideal (i.e. who I want to be), and ideal social (i.e. who I want others to think I am) self-concept (Graeff, 1996; Sirgy, 1985).

Rhee & Johnson (2011) found that the more participants rated the brand as similar to their ideal social self-concept, the more they liked the brand. Regarding clothing brands, the impact was greater for male adolescents who used apparel brands to attempt to control how they are perceived by others. This finding supports previous research (Malar et al., 2011) and suggests that for adolescents, brands are an important factor in allowing them to be and appear as they want others to see them.

Similarly, Piacentini & Mailer (2004) found that adolescents purchased and wore branded clothing to symbolize that they were keeping up with their peers and that they were not poor. In addition they also reported that specific clothing was worn to boost confidence and compensate for any uncertainties they experienced. Darley (1999) found that there was a difference in shopping motivations between low esteem and high esteem teenagers. High esteem teens gained intrinsic rewards from shopping whilst low esteem teens required both intrinsic enjoyment and extrinsic benefits as motivators.

Roper & Shah (2007) found that children who lacked the latest fashion brands were often perceived by their peers as 'poor quality people'; indeed low-income children have a strong tendency to evaluate peers based on the brands of their clothing/shoes (Roper & Shah, 2007 and Elliott & Leonard, 2004). Interestingly, the importance placed on brands of clothing and shoes, also extends to food brands in school lunch boxes. Roper & LaNiece, (2008) found that adolescents and particularly low income adolescents judge the worth of a person and their potential suitability as a friend, based on whether or not they possess the appropriate brands in their lunch boxes.

The above examples demonstrate the power of 'conspicuous consumption' - given the social pressures of adolescence and the heightened need for social inclusion in the teenage years, this age group is particularly prone to consuming conspicuously. Furthermore, a study by Gudmunson & Beutler (2012) linked conspicuous consumption amongst teenagers with a lack of caring by parents; "adolescents may compensate for lack of parental caring by developing consumption patterns designed

to secure admiration and respect from others when it is lacking in the parent–child relationship” (pg.390). It is clear that overall, consumerism, materialism and indeed brands, play a significant role in the life of the average ‘western’ citizen. However, the role and the impact that these factors play in the lives and well-being of adolescents seem to be particularly pronounced; hence presenting the need for the thorough examination of how materialism and consumerism impacts on their self-esteem.

A new scale to measure Self-Esteem

Methodology

Theoretical aspects of scale development

The scale development procedure was led by three key texts; the seminal scale development paper by Churchill (1979), the more recent ‘Scale Development’ by DeVellis (2003) and ‘Multivariate Analysis’ by Hair et al., (2013). Both qualitative and quantitative methods were employed in the scale development process. That is, the definition of self-esteem and the generation of scale items were derived from a comprehensive review of previous theories and scales, as well as in-depth qualitative data gathered from a substantive adolescent sample. This not only meant that the construct was defined in the adolescents’ *own* terms, but also in their *own* language. The qualitative element of scale development was conducted in the form of focus groups. The social nature of focus groups was deemed to be specifically appropriate for measuring the construct of self-esteem as well as the particular sample of respondents; they are both highly dependent on social contexts. Considering the highly personal nature of self-esteem and the socially sensitive nature of the sample,

the sense of ease provided by focus groups, was a substantial motivation to employ this methodology. Indeed, individual interviews with children have previously been found to be restrictive; the participants are typically extremely shy in the interviews and share only limited information with the researchers (as experienced by Roper & Shah, 2007).

Conceptualising and understanding Self-Esteem; The Qualitative Stage

A total of 20 focus groups were conducted in 10 schools across England; 5 of the schools were from high-income areas and 5 from low-income areas as we wanted a scale that could be used across society. Two focus groups were held per school, thus totalling a sample of 120 adolescents. Participants were Year 10 students ranging between the ages of 14 and 16. Each focus group consisted of six participants, three boys and three girls and lasted between 50 to 60 minutes. Although many sources agree that when conducting focus groups, males and females should be kept separate, the groups for this study were mixed. This is because the social dynamics of the groups were intended to reflect the context in which self-esteem development naturally occurs; in the presence of both sexes. Schools were located in various parts of England (North, South and Midlands) and were varied in terms of their rural or urban setting (inner city to suburban). Furthermore, the level of social deprivation varied amongst the students in the schools and was gauged by the percentage of students eligible for free school meals per school. According to the UK government's Office for Standards in Education's (OFSTED) criteria, a deprived school is one in which more than 35% of the pupils are eligible for free school meals (OFSTED, 2003). With this variation in the sample, the aim was to ensure that the concept and

definition of self-esteem was not 'one-sided' or specific to a specific segment of adolescents.

Vignettes were used in the focus groups as a means of facilitating the discussions. Vignettes are short (200-300 words) stories which help to initiate discussions regarding abstract themes (Finch, 1987); they provide an external and concrete base on which to focus discussions (Hazel, 1995; Barter & Renold, 2000). Vignettes are a useful tool for opening discussions, but are also effective in transferring the discussion of personal topics, on to an external, hypothetical scenario. Three vignettes were used in each focus group and were designed to depict children with varying levels of self-esteem. For example, *Jane* represented a girl with very low self-esteem, *Felix* illustrated someone displaying typically high, yet defensive self-esteem and *Amy* described someone with a stable and secure self-esteem. Each vignette was presented separately and followed by the question "What do you think about Jane/Felix/Amy?" This allowed the respondents to highlight and discuss the aspects of the vignette that were most relevant to them and initiated further discussions.

A Twenty Statements Test (TST; Kuhn & McPartland, 1954) was also administered to the respondents at the end of each focus group. Participants were asked to complete 10 statements starting with 'A person with high self-esteem is/will...' and 10 statements starting with 'A person with low self-esteem is/will...' It was hoped that the results from this TST would 1) give indications as to how high/low self-esteem can be (widely) identified, thus guiding item generation, 2) give silent respondents a chance to 'voice' their opinions, 3) provide an opportunity to share

private/ embarrassing thoughts and feelings without having to say them out loud and 4) provide insight into the construct of self-esteem in terms of their own frames of reference and language.

Subsequently, the 20 hours of transcripts from the focus groups were manually analysed using template analysis (King, 2012; Miller & Crabtree, 1999) whereby common themes were identified and coded accordingly. After having identified the dominant themes manually, the data were entered into NVIVO and re-analysed. This served to condense and refine the dominant themes identified in the initial analysis. This also had the benefit of reducing the number of themes, making the data more concise and manageable.

Results of the Qualitative stage

Eleven dominant themes/codes were identified from the focus groups. These were – definitions of self-esteem; feelings about the self; ability and skill; praise and recognition; other peoples' comments/behaviour/opinions; physical appearance; general feelings; communicating and socializing; friends and popularity; fitting in; and finally but importantly, clothing and brands. Some key areas of the qualitative stage are detailed below.

When questioned about how one might observe positive or negative self-esteem, the notion of 'taking care/pride in one's appearance' was often mentioned. Possessing ability or a skill was central to adolescent self-esteem. Furthermore, a fear of failure seemed to differentiate low and high self-esteem individuals; that is, the notion of trying new things would be less likely for low self-esteem individuals due to an

enhanced fear of failure. The high importance of receiving recognition for one's abilities and skills was clearly noted by all of the groups.

Praise was often sought and gained for academic or sporting achievements. However, it was interesting to note that praise could also be attained by wearing fashionable (and often new), branded clothing. There was a sense that wearing 'good' clothes is a skill to be recognised.

yeah cuz if you got new stuff and then you walk past someone and they say oh that's nice stuff – like a good comment, then you like ahh no ones gonna be looking at me in the wrong way now.. you think that it's fine it makes yourself feel good as well cuz you got new stuff and it makes you feel better cuz its new.. yeah

This importance placed on 'good clothes' was predominantly observed amongst the lower-income groups, suggesting that this cohort may place greater importance on clothing and appearance than their high-income counterparts. Not surprisingly, bullying was perhaps the most dominant and frequently mentioned example of a consequence of not having the right clothes.

Physical appearance was also expressed as a clearly important facet of adolescent self-esteem. That is, physical features – beauty, skin, weight, height, hair - were all mentioned, with the overall conclusion being that 'pretty' or 'good' looking people have higher self-esteem than 'ugly' ones because they are happier with themselves.

An individual's general outlook (negative or positive) on life was also regarded as a good indicator of general self-esteem level. Those people who consistently see the

'negative' side of things were thought to have low self-esteem. A definitive marker of self-esteem was thought to be the extent to which an individual is able and willing to socialise and communicate confidently with others. The number of friends one has was often mentioned as a marker for someone's self-esteem; reinforcing the notion that self-esteem is a highly social construct, not developed in isolation.

The notion of being part of the 'norm' was also deemed crucial to the well-being and self-esteem of the teenagers. There is a strong element of social cohesion within teenage circles whereby anything remotely outside socially determined 'acceptable standards' is perceived as different, hence unacceptable and thus can lead to bullying and negative comments from peers. Throughout the focus groups, the most frequently mentioned aspects were appearance and clothing. The intense focus on 'fitting-in' seemed to be a result of heightened social comparison amongst adolescents. Indeed it is likely that the close-knit school environment emphasises this social comparison; this was in fact noted by the adolescents themselves. In terms of self-esteem, they seemed to be aware of the fact that the importance of fitting in and conforming to the group norms was especially important to their age-group.

Interestingly, there were distinct differences in opinion between the high and low-income groups with regard to fitting in. For example, it was often the case in the higher-income schools that high academic achievement was a desirable trait, yet material possessions and the ability to afford the 'latest' fashionable item (clothes, sneakers, phones etc.) was specifically important in the lower-income groups.

It became clear that clothing helps an individual to fit-in with their peers – by wearing similar styles and similar brands they gain a feeling of belonging and acceptance.

like whatever fashion they're wearing, you wanna be like the same you don't wanna be the one who stands out in a way on your own – you wanna be part of the group with them.

Furthermore, the groups made it clear that by wearing the 'wrong' brands and clothes, one runs the risk of social exclusion.

Cuz if you got a whole gang of people wearing Lacoste, then you don't wanna rock up in Reebok [giggles]

Certain focus groups mentioned brands and designer labels and did so in the context of the brand signifying *style*. However, other groups tended to focus more on the *social status* that the brands conveyed.

Like they think you're poor. Like you might be richer than them or have more money than them but to them it seems like you can't afford to buy Nike, Adidas and stuff.

Based on the insight gained from the focus groups, in combination with the literature reviewed, the following definition of 'Adolescent self-esteem' was developed:

The value and worth an individual ascribes to him/ herself – high or low. It is a personal, subjective evaluation of the self, resulting from a combination of a) the judgements, behaviours and opinions of significant others including peers and family

b) a process of social comparison referring to skills (academic, sport and other), physical appearance, possession/use of branded clothing and the extent of social acceptance. An individual's self-esteem manifests itself in his/her behaviours and attitudes.

When self-esteem was clearly defined, the following stage was commenced; operationalising the construct.

Developing Scale items

A. Operationalising Self-esteem: Initial mass item generation

The development of the scale items was started with a broad, experimental and all-inclusive approach. In order to "develop a set of items which tap each of the dimensions of the construct at issue" (Churchill, 1979, pg. 68), a series of questions was designed under each of the 11 identified themes. First, a basic statement was formed, directly addressing the theme; for example 'I am good-looking' was used for the Physical appearance theme. Subsequently, alternatives to that statement were created in order to tap into the same construct but in a slightly different way; for example 'I am happy with the way I look' or 'people probably think I'm good looking'. This was done because, by asking the same question in a series of different ways, "different shades of meaning" can be brought to the construct (Churchill, 1979, pg. 68). Furthermore as is clear from the thematic analysis, each theme contained various elements within it and thus a large number of statements were developed for each theme. This inevitably created a large number of redundant items, yet provided the benefit of exploring the phenomenon in different ways (as suggested by DeVellis, 2003). Indeed the importance of developing a

broad and inclusive initial item pool is broadly agreed upon within the scale-development literature; as stated in Loewinger's (1957) seminal work "The items in the pool should be chosen so as to sample all possible contents which might comprise the putative trait according to all known alternative theories of the trait (pg. 659). That is, as emphasised by Clark & Watson (1995), the generating of the initial item pool should "err on the side of over inclusiveness" (pg. 311).

Due to the sensitive nature of self-esteem, as described previously, special attention was given to creating items which were not highly face valid and were worded in such a way that made the questions less *directly* personal (e.g. 'people would probably describe me as a quiet person'). In this way it was hoped that the common problem of high social desirability in self-esteem scales would be avoided. A conscious effort was made to formulate scale items which did not have obviously socially desirable answers. For example statements such as 'I have no friends' were avoided. Such direct statements are likely to arouse defensive answers which can skew the scores. In addition, attempts were made to include both positively and negatively worded items because the inclusion of negatively worded scale items helps to avoid 'agreement biases in a scale (DeVellis, 2003).

B. Item Reduction

The initial 'brainstorm' approach to item generation allowed for the free creation of items and resulted in a vast number of statements for every theme. The initial item pool was then evaluated in terms of relevance to the identified themes as well as suitability for the scale. For example, ambiguous and lengthy items were removed as they risk eliciting responses based on false understanding (DeVellis, 2003).

Furthermore, items which were thought to be above the reading level of the sample were removed². Similarly, overly simplistic items were removed for their risk of appearing patronising to the respondents (as guided by MRS, 2006). In addition, by prioritising verbatim phrases which emerged from the focus groups, the applicability of the items was ensured (as endorsed by Robinson et al, (1991). As described by Barker & Weller (2003), this approach also allows for the inclusion of 'the alternative language of youth'.

In order to avoid agreement bias (DeVellis, 2003), the authors were cognisant of the need to include both positively and negatively worded items. Furthermore, the items which were retained were compared to the answers provided in the twenty statements test (TST). That is, items which were similar to statements that were frequently mentioned in the TST were given preference over those that were not; this approach once again ensures that the scale items are relevant and applicable to the construct being measured and thereby suggesting face validity, suggesting to respondents that a test is measuring what it is supposed to be measuring (Labbe, 2001). The above steps resulted in a total of 52 statements.

As a final measure of content validity, the initial 52-item pool was reviewed by an expert of both adolescent psychology and scale development³. This approach is endorsed by Clark & Watson (1995) who recommend that scale developers consult with psychometricians throughout the development process. The consultation also allowed for further validity of the adolescent scale – i.e. to confirm the inclusion of

² The reading level of the items was determined in accordance with the language levels used in the focus groups and items which were worded in a manner similar to that which was spoken in the focus groups, were kept.

³ Jane is considered a specialist in youth and scale development – See Clarbour & Roger (2004): The construction and validation of a new scale for measuring emotional response style in adolescents.

relevant themes in the newly constructed definition of self-esteem and whether the items were comparable and relevant to more current work on adolescent self-esteem (as suggested by Clabour & Roger, 2004). As a result of the feedback, a number of questions were altered, removed and added, resulting in a final item pool of 73 items. This final item pool was then analysed with regards to the various theories and measures of self-esteem reviewed previously. This allowed for the identification of the similarities and differences between 'the old and the new' theories of self-esteem.

C. Determining the Response format

The next stage was to determine the most appropriate response format for the scale. The most appropriate style of response will depend on the construct measured, the social class, the developmental stage and the education level of the respondents (Coelho & Esteves, 2007) and thus there is no one type of format which is preferable to any other (Clark & Watson, 1995). Based on the scales reviewed, and indeed amongst contemporary personality assessments more broadly, the majority of scales employ either dichotomous responding (such as true vs false) or likert-type rating scales with three or more options ranging from negative to positive (e.g. DeVellis, 2003; Rosenberg, 1965; Goldberg et al, 2003; Clark & Watson, 1995). It is important to ensure that the number of options in a response scale does not restrict respondents in and is sensitive to the subtle differences between respondents (Coelho & Esteves, 2007). Comrey (1988) argues that "multiple-choice item formats are more reliable, give more stable results, and produce better scales"

(pg. 758). However, other authors argue that Likert-type scales can be problematic when the equal intervals in the scaling are not justified (Loevinger, 1957). The Visual Analogue Scales (VAS) however, provides respondents with a free range of response options along a continuous, unmarked line between a set of opposing responses (e.g. agree-disagree). This allows respondents to mark where their opinion lies on that continuum, as opposed to pre-determined intervals. It is likely for this reason that the VAS response has been described as being more sensitive to response differences (DeVellis, 2003).

To determine the most appropriate response format, a sample of five respondents (three males, two females; 15 years old) of mixed academic ability⁴ were presented with the preliminary scale items and five different response scales including numeric scales and dual response options⁵. After completing the scale, participants were asked which response style they preferred and why. Valuable feedback was received, as can be seen below.

A
I preferred the line because I found it easier to show how I felt about each question.

B
"I preferred the last set of questions (with 11 point scale) – they had a neutral option"

C
"I didn't like the two options answer. These are less accurate"

⁴ The pilot sample for the response scale was based in one of the schools; the facilitating teacher was asked to select a group of students of mixed academic ability.

⁵ 1) Five-point Likert scale ranging from strongly agree to strongly disagree; 2) Four-point point Likert scale ranging from strongly disagree to strongly agree; 3) Two option scale: Less like me vs. More like me; 4) 11-point continuous numeric scale from 'not like me at all' to 'a lot like me'; 5) 10 cm VAS ranging from 'not like me at all' to 'a lot like me'

Based on the feedback, there appeared to be a clear preference for a broader, less restrictive range of response options. For this reason, it was decided that a 10cm Visual Analogue Scale would be used in the questionnaire. This choice was also discussed with the psychometric expert (referred to above) and it was agreed that this response style was indeed the most suitable option. Indeed, as explained by Clark & Watson (1995) the VAS is rarely used for multi-item scales because they are extremely laborious to score, however the authors decided to pursue this option as it was clearly the preferred and most accurate format for the respondents and the construct being measured.

Quantitative Stage: *Round one of data collection*

A. Initial responses to scale items

A total of six schools were contacted for the quantitative stage of data collection. They included high and low-income schools⁶ from the North, South and Midlands of England and represented urban and rural locations. Schools were asked to distribute the questionnaire to the Year 10 pupils (15-16 year olds). A total of 550 questionnaires were distributed between the schools. The questionnaires were sent to the participating schools and administered in class by the teachers. In addition to the 73-item scale, Leary's (1983) Brief Fear of Negative Evaluations (BFNE) scale was administered to all participants (as explained below, this was for the purpose of initial concurrent validation). All the questionnaires were distributed in envelopes so as to assure students of their anonymity. In addition, all administering teachers were

⁶ OFSTED (2003) defines a deprived school as one in which over 35% of pupils are eligible for free school meals. Thus, the high and low-income schools were classified according to whether the percentage of students on free school meals was below or above 35%, respectively.

provided with a briefing note which ensured that all respondents were given the same set of clear and standardised instructions from the teacher.

A total of 425 usable questionnaires were returned. The average age of the sample was 15.43 years and the male: female ratio was approximately 50:50. 60% of the respondents were classed as high-income and 40% as low-income.

B. Exploratory Factor Analysis

The decisions made and approaches assumed under the Exploratory Factor Analysis process was guided by relevant literature from psychological, psychometric and methodological literature. As noted by Beavers et al. (2013), "The variety of perspectives and often conflicting opinions can lead to confusion among researchers about best practices for using factor analysis" (pg. 1). Exploratory Factor Analysis was performed on the 73 scale-items using the total sample and produced a scree-plot which suggested the presence of four distinct factors. In order to explore and confirm the four-factor solution that was found, the total sample was split and Principal Component Analysis (PCA) was performed on three separate samples; 60% of the total (256 cases), the remaining 40% (169) and the total sample (425). As noted in a series of reviews of statistical methods in psychological, educational, organisational and marketing research, 40 to 67% use PCA, in comparison to 12 to 34% using CFA (e.g. Conway & Huffcutt, 2003; Peterson, 2000).

By comparing the results of the PCAs on the three samples, it was possible to reduce the number of items and identify those which were stable across each of the samples. This enabled the researchers to identify those factors which were consistently represented regardless of how the sample was split and hence can be

argued to be most stable across conditions and thus represents those factors which are most psychologically central to the sample. This approach adheres to guidance by Tabachnick and Fidel (2001) who emphasis the cyclical process of comparing and refining solutions to reach the most meaningful one.

The item reduction process assumed an iterative and exploratory approach which combined statistical indicators with qualitative interpretation so as to produce a final set of scale items which were both logical and statistically sound. This approach is supported by Clark & Watson (1995) who state that “there is no substitute for good theory and careful thought when using these techniques (factor analysis)....” and “Blind adherence to a few simple rules is not likely to result in a terrible scale, but neither is it likely to be optimal” (pg. 313). The debate between purely empirical and criterion-based selection of scale items dates back to the 1940s and 50s.

Whereas Meehl’s (1945) ‘empirical manifesto’ encouraged developers to adhere to strict empiricism, it soon became apparent that this approach did not sufficiently allow for instruments to be generalised across settings and, importantly, restricts the opportunity for the advancement of psychological theory. It is perhaps for this reason that ‘blind-empiricism’ is no longer strongly encouraged in the scale development literature (as discussed by Clark & Watson, 1995). Indeed, “Every step of the process in a factor analysis requires the researcher to be firmly grounded in contextual theory and fundamental understanding of factor analysis methodology” (Beavers et al., 2013, pg. 12)

The various steps taken for item reduction are outlined below.

C. Item reduction

Step 1

Based on the findings from the scree-plot, the data from 60% of the sample were rotated to a four-factor Oblique (Direct Oblimin) solution with a minimum loading exclusion criterion of 0.40⁷. The decision to rotate the initial pattern matrix was based on the guidance from the literature which largely agrees that rotations result in statistically comparable solutions which are more meaningful (e.g. Beavers et al., 2013 and Tabachnick & Fidel, 2001).

As item reduction was the priority, the pattern matrix of the 73 items was examined and 21 items which failed to load on any single factor were removed and the rotation was re-run with the remaining 52 items. The resulting pattern matrix was once again examined and any items which were seen to cross-load in this solution were removed (6 items). Finally, the remaining 46 items were rotated again and the pattern matrix re-examined. Given the significant reduction in scale items, it was felt that the remaining 46 items should be subjected to further scrutiny by comparing the loadings of the factors, once more, on the three separate samples: 60%, 40% and the whole sample. This would allow the identification of the most robust and stable scale items while enabling further item reduction.

Step 2

The pattern matrices (resulting from the remaining 46 items) produced from the three samples (40%, 60%, total sample) were compared and items loading on all three were retained; a total of 28 items. The decisions to retain or exclude the remaining items were based on a combination of their loading strength their stability

⁷ KMO = .809; Bartlett's test of sphericity; $p=0.000$

to load on the same factor across all three samples (as suggested by Pallant, 2003 and Clarke & Watson, 1995), and whether or not they were deemed relevant to a particular factor. As stated by Clark & Watson, 1995, pg. 313 “if items that reflect the theoretical core of the construct do not correlate strongly with it in preliminary analysis, it is not wise simply to eliminate them without consideration of why they did not behave as expected”. Two examples of the interpretive nature of the scale reduction process are outlined below:

1. Item 19 - “I have lots of good friends that I can go to for help” - failed to load on any factor when run on the whole sample and loaded on two separate factors in the 60% and 40% samples. Thus, the inconsistency with which this item loaded across the three samples deemed it unstable and was therefore removed.
2. Item 69 - “I am proud of my abilities/skills” – was retained as it loaded on the same factor in both the whole and 60% samples. The fact that this item failed to load on the 40% was overridden by its stability and face validity. That is the fact that abilities and skills were seen to bear great importance in adolescent self-esteem, both in the wider literature and confirmed in the focus groups and twenty statements test.

Face validity refers to whether a test appears to respondents to be measuring what it’s supposed to be measuring. As explained by Labbe (2011), some face validity is important for increasing motivation to take the test because respondents are less likely to take a test seriously if it does not appear relevant to them. However, high face validity can also lead to response bias and social desirability bias. This once

again demonstrates the important need for interpretation and consideration during the scale development process.

After scrutinising the items which did not load on all three samples, a total of seven items were removed; this resulted in 39 scale items which were once again rotated on the whole sample. With the number of scale items reduced to a manageable size (39), the make-up of the individual factors/components were closely examined in order to determine what dimension of self-esteem each of the four factors represent. The interpretations of each factor are described below.

Factor 1: Social comparison

This factor is concerned with feelings and behaviours which occur as a result of social comparisons. For example, the three most heavily loading items on this component clearly referred to *reactions* from social comparisons and the remaining items can all be seen to relate to 'other people'. Items comprising this factor in the final scale are:

Table 1 in about here

Factor 2: Brand Ownership

The items loading on this factor clearly refer to the ownership of brands and also indicate the level of importance placed on possessing brands. Items comprising this factor in the final scale are:

Table 2 in about here

Factor 3: Self-evaluation

This factor encompasses a range of items referring to physical appearance, abilities, self-belief and recognition of achievement. Despite this variety amongst the items, the central theme is their relation to the ways in which someone *evaluates* themselves; or, the way that others evaluate them. Items comprising this factor in the final scale are:

Table 3 in about here

Factor 4: Social ability/ extraversion

All the items loading on this factor clearly refer to how sociable and extravert an individual is. It would be expected that high scorers on this factor would be those with a high level of social skills and ability. Items comprising this factor in the final scale are:

Table 4 in about here

Step 3

In order to confirm the factor structure, the structure derived from the total sample was compared to that produced on 60% and 40% of the sample (PCA). The results showed that this factor structure (with less scale items) was more stable across the three samples than the previous one; thus implying that the retained items are more stable markers of their relevant factors than those which were removed. Although there was a large degree of coherence amongst the items loading within each factor, there were certain items which seemed – in terms of face validity - less relevant to the component. For this reason, the suitability of scale items within each of the factors was further assessed by examining the Cronbach's alpha values of the items

within each factor. However, as discussed above, the decision to retain or remove items was based on an iterative process including empirical methods such as Cronbach's alpha values, as well as qualitative interpretation of individual items and re-examinations of factor structures (as recommended by Stanton et al, 2002).

Based on this process, a total of 16 items were removed from the scale, the Cronbach alpha for the refined factors were as follows: Social Comparison (7 items) 0.833; Brand Ownership (4 items) 0.777; Self-evaluation (6 items) 0.780; and Social Ability (6 items) 0.709. The combined alpha for the 23 item scale was 0.845 which adheres to Nunnally's (1978) recommended minimum standard of 0.80 and exceeds the more contemporary guidelines of 0.60 and 0.70 (for example Dekovic, Janssen and Gerris, 1991).

Given the detailed nature of the item reduction procedure, the section below outlines the item-reduction process for the Brand Ownership factor only; the process again exemplifies the use of empirical data and qualitative interpretation in the item reduction process.

Factor 2: Brand Ownership

This factor was the most consistent through the item refining stages as it continually loaded on all three samples (whole, 60% and 40%). However, a reliability analysis for all six items produced an alpha value of 0.271. Removing the lowest loading items (59 and 13) increased this value to 0.638. This value further increased with the removal of item 44; to 0.777. Considering the stability of the factor structure and the added stability of four items per factor (as suggested by Guadagnoli & Velicer, 1988), it was retained. Furthermore, the removal of item 44 can be argued

to decrease the alpha value due to the fact that it taps in to a slightly different domain of brand ownership; the acquisition process itself. Once again, a qualitative interpretation of this item provides a stronger rationale for its retention than statistical values. Indeed, as argued by Stanton et al., (2002), large alpha values may be indicative of a “failure to adequately sample content from all parts of the construct domain” (Stanton et al., 2002, pg. 171).

Step 4

A final PCA with oblimin rotation was performed (on the total sample) to further confirm the stability of the factor structure. The use of an oblique, rather than orthogonal rotation was based on the fact that oblique rotations account for the relationships between factors, which is typically the case in social science research and there is generally more support for the use of oblique rotations in the literature (Beavers et al., 2013). The four factor extraction explained a total of 50.89% of the variance. The ‘Effects of social comparison’ accounted for 25.5%, ‘Brand ownership’ for 10.41%, ‘Social ability/extraversion’ for 7.96% and ‘Self-evaluation’ for 6.97%.

D. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA), as recommended by De Vellis (2003) and Hair et al. (2006) assesses the suitability of the factors identified in Exploratory Factor Analysis, through Structural Equation Modelling (SEM). The CFA was carried out on the 23 items and subsequently, in order to reduce the complexity of the model, the analysis was also run using summated scales (as composite indicators) for each of the 4 factors; also known as parcelling (Hair et al., 2006). The parcelled model showed the direct relations between the four factors and the overall construct of

self-esteem. The Goodness of Fit Indices was as follows: Measurement Fit: χ^2 (df) = 8.358 (2) $p < 0.001$; Comparative Fit Index (CFI) = 0.967; Bentler-Bonnet Normed Fit Index = 0.958; Bollen (IFI) Fit Index = 0.969; Root Mean Square Error of Approximation (RMSEA): 0.9; HOELTER: 281.

E. Concurrent Validation

The initial 23 item scale was subjected to concurrent validation using Leary's (1983) Brief Fear of Negative Evaluations (BFNE) scale which measures "the degree to which people experience apprehension at the prospect of being evaluated negatively" (Leary, 1983, pg. 371). As noted above, this scale was distributed with the new self-esteem scale; the concurrent validation was based on 425 responses. Based on Z scores of the 2 scales, the Pearson product moment correlation coefficient showed a strong negative correlation between the self-esteem scale and the BFNE scale: $r = -0.533$, $n = 372$, $p < 0.000$. As suggested by the literature, this result suggests that a high fear of negative evaluation is associated with low levels of self-esteem; thereby indicating validity of the scale items in the new scale.

Round two of data collection: test-retest and concurrent validation

Eight months after the initial questionnaire was distributed, the new 23 item scale was re-administered to 45 of the pupils who had completed the initial scale; their ID numbers had been specifically noted in the initial stage for this purpose. In this round 2 concurrent scales were included: Harter's (1998) Self-perception Profile for Adolescents (SPPA) and Strahan & Gerbasi's (1972) Short version of the Marlow-Crowne Social Desirability scale (MC-1).

A. Test-retest results

The Cronbach's alpha of the correlation between the first and second administration of the 23 self-esteem items only, revealed a high test-retest reliability of the scale: $r = 0.776$ ($n=45$, $p<0.000$). Values between 0.7 and 0.8 are considered to display high reliability. Furthermore, a paired-samples t-test of the total scores showed no significant difference between the results at T1 and T2. These results suggest the reliability and consistency of the new self-esteem scale.

B. Concurrent Validation

The scores for the two concurrent measures were correlated to the 23 items of the self-esteem scale based on Z scores. The SPPA showed a significant positive correlation with the self-esteem scale; $r = 0.501$ ($n=56$, $p<0.01$). This suggests a positive relationship between high self-esteem and high self-worth, and vice versa.

The lack of a significant correlation between the Z scores of the self-esteem scale and the MC-1, suggest that the 23 scale item scale is not at risk of high social desirability bias; $r=0.042$ ($n=56$, $p= 0.761$).

Round three of data collection: Confirmation of self-esteem scale and construct validity

Having refined the scale, the final administration of the 23 items was distributed to a sample of 1170 respondents across 9 schools; in both high and low-income catchment areas. 889 usable questionnaires were returned; respondents were 49% male, 51% female and an average age of 14.8 years.

In this final round, seven concurrent measures were selected for the validation and further exploration of the new self-esteem scale, these included: Harter's (1988) 'global self-worth' dimension of the Self Perception Profile for Adolescents (SPPA); Leary's (1983) Brief Fear of Negative Evaluations (BFNE) scale and Strahan & Gerbasi's (1972) short version of the Marlowe-Crowne Social Desirability Scale (MC-1). In addition, Campbell et al's (1996) Self-Concept Clarity Scale (SCC); Leary et al.'s (2005) Need to Belong scale (NB); Bearden et al.'s (1989) Consumer Susceptibility to Interpersonal Influence scale (CSII); and Goldberg et al.'s (2003) Youth Materialism Scale (YMS) were added to the questionnaires. All respondents completed Harter's scale and the remaining 6 scales were divided between the respondents by administering three different versions of the questionnaire as follows:

1. Self-esteem scale and Global Self Worth plus YMS and SCC = 50 items (32% of respondents)
2. Self-esteem scale and Global Self Worth plus BFNE and MC (32% of respondents)
3. Self-esteem scale and Global Self Worth plus CSII and NB (36% of respondents)

A. Exploratory factor Analysis

The 23 items of the Self-Esteem scale were subjected to a principal component analysis (PCA) with four factors specified. Indeed, the development sample identified 'Self-Evaluation', 'Brand Ownership' 'Social Ability' and 'Social Comparison Effects' as the dominant factors of self-esteem.

The preliminary analysis of the 23 items revealed that two of the scale questions were highly correlated; item 5- *'When my friends are wearing a brand that I don't have, it makes me feel bad'* (Social comparison effects) and 26- *'When people describe me they would probably say I have a lot of friends'* (Social ability), $r = 0.993$, $p=0.000$. Item 5 had proven to be problematic due to its loading on the 'social comparison effects' factor. That is, the question involved brands and thus also related closely to the items loading on the brand ownership factor.

Furthermore, the fact that item 26 loaded on the 'social ability' factor but correlated so highly with an item on the 'social comparison effect' factor, suggested that the item was not explicit to one factor. For these reasons, both of the items were removed and further analyses were completed on the remaining 21 scale items. The suitability of the data for factor analysis was again confirmed; Bartlett's test reached statistical significance and the KMO value was 0.886 (exceeding the recommended 0.6). Cases were excluded pairwise and the PCA was performed on 845 cases.

The resulting four-factor solution accounted for a total of 54.6% of the variance in self-esteem scores; an improvement on the 50% in the development sample with 23 items. A Direct Oblimin rotation found the factor solution had remained unchanged for this sample⁸, indicating the stability of the factor structure of the SE scale. Table 1 shows the pattern matrix of the rotated solution and Table 3 details the reliabilities and percentage of variance explained by each of the four factors and the total scale.

These tables suggest that the four factors of the self-esteem scale are able to account for a large amount of the variance in scores. The stable factor structure and the percentage of the variance accounted for by each factor, indicates the

⁸ As compared to the development sample.

importance of self-evaluation, brand ownership, social ability and the effects of social comparison when assessing self-esteem levels. Furthermore, the high Cronbach's alpha values for both the independent factors and the total scale highlight its reliability. The only alpha value below 0.7 was found on the social ability factor. However, considering the wide variety of questions in this factor, this was not surprising the items loading on this factor do not all measure the same precise ability – and hence the correlations between them are likely to be lower. For example, when looking at items 8 and 19 (in Table 2), one can argue that it is possible to be a quiet person yet make friends easily.

Table 5 in about here

Table 6 in about here

B. Confirmatory factor analysis (CFA)

As with the initial CFA, parcelling was used as a means of obtaining the simplest and most clear model of the construct; summated scales of each of the four factors were used as composite indicators.

The simplified, model using summated scale is shown below. It further illustrates the significant relationships between adolescent self-esteem and the four factors within a larger sample (N= 846; Hoelter = 330).

Figure 1 in about here

Once again, the four factor structure of adolescent self-esteem is reaffirmed. Measurement fit: $\chi^2 (df) = 15.4 (2)$ $p < 0.001$; Comparative Fit Index (CFI) = 0.975; Bentler-Bonnet Normed Fit Index (NFI) = 0.975; Bollen (IFI) Fit Index = 0.978; Root Mean Square Error of Approximation (RMSEA): 0.09; HOELTER: 330.

C. Construct Validity

With this larger sample, the construct validity of the 21 item scale was tested. As outlined above, all respondents completed the self-esteem scale and Harter's (1988) global self-worth dimension (for convergent validity) and the remaining six concurrent measures were divided between the respondents depending on the version of the questionnaire they received. The concurrent measures were the Youth Materialism Scale (YMS), Self-Concept Clarity scale (SCC), Brief Fear of Negative Evaluations scale (BFNE), the Marlow-Crowne Social Desirability Scale (MC-1), Consumer Susceptibility to Interpersonal Influence scale (CSII) and the Need to Belong scale (NB).

Having confirmed the normality of the individual scales and ensuring no violations of the assumptions of linearity and homoscedasticity, bivariate correlations were employed to examine the relationships between the concurrent measures and the self-esteem scale. The correlation coefficients are displayed in Table 7 below.

Table 7 in about here

As with the test-retest sample, the overall correlation with the results of the MC-1 scale suggests that the new self-esteem scale is not at a high risk of social desirability bias.

The Added Value of Brand Ownership in Adolescent Self-Esteem measures

The correlations with all the concurrent measures were in the expected directions. Specifically, the negative correlations with the CSII and YMS scales support the predicted negative relationship between self-esteem, consumer susceptibility and self-esteem and materialism. This is why – as argued in this paper – there is a need for including elements of consumerism (Brand Ownership) in up to date measurements of adolescent self-esteem. It was expected that low self-esteem is related to a high level of materialism and consumption susceptibility. Indeed the correlation between low self-esteem and high levels of materialism and consumer susceptibility has been presented by authors previously (e.g. Chaplin & Roedder-John, 2007; Kasser, 2002; Deci & Ryan, 1985).

In order to examine the added value of the Brand Ownership factor, the four scale items relating to brand ownership were removed from the scale and the remaining 17 item scale (SES scale without the brands ownership items) was correlated with the concurrent measures again. As can be seen in the table below, the results showed the same predicted direction and strength of correlation with all of the scales relating to self-esteem; i.e. global self-worth, self-concept clarity, fear of negative evaluations and the need to belong. The strength of the correlations did not differ significantly; all Zobs values were within the range of -1.96 and +1.96.

Interestingly, the correlations between the SES scale - without the brand ownership items- and the scales relating to consumption/materialism (materialism and consumer susceptibility to interpersonal influence), showed the predicted negative relationship with the scale, but were not statistically significant. This pattern of correlations between the new SES scale with and without the brand ownership items, suggests that the addition of the brand ownership items, does not alter the scales ability to measure self-esteem, but does increase the sensitivity of the scale to the important role which branded clothing plays in adolescent self-esteem.

Table 8 in about here

In addition, the fact that of the Brand ownership factor accounted for 11.5% of the variance in scale scores – as compared to 28.4% for self-evaluation, 8.1% for social ability and 6.6% for the effects of social comparison, shows that Brand ownership is an important contributor to adolescent self-esteem and may suggest that existing scales (none of which account for brand ownership) are in fact overlooking a key dimension of adolescent self-esteem. Indeed it is precisely for this reason that “tests need to be revised to keep them contemporary and current” (Murphy & Davidshofer, 2005, pg. 226).

Furthermore, the fact that these negative correlations between the SES scale and materialism and consumer susceptibility are expressed, lends support to the strength of the SES scale. That is, there could have been a risk of a of a positive relationship occurring between the SES and CSII and YMS scale, considering that the Brand Ownership items refer directly to materialism and consumption. However, given that

the SES scale – both with and without the brand ownership items- do not show a positive relationship with the CSII and YMS scale. This suggests that the brand ownership items are measuring the consumerism factor of self-esteem, as predicted.

Discussion and Conclusions

The exploratory factor analysis, confirmatory factor analysis and concurrent validation measures, indicate the successful development of a new self-esteem scale for adolescents. The stable factor solution, and the strong goodness of fit values confirm the existence of four factors of self-esteem for adolescents; Self-evaluation, Brand ownership, Social ability and Social comparison effects. Furthermore, the scale's validity was confirmed through its intuitive and predicted relationships to six other scales relating to self-esteem. Importantly, the 0.694 correlation with the Harter Global Self-Esteem component showed that the global construct of self-esteem is commonly measured by the two scales but that there are considerable differences between the two measures in terms of the specific factors they are measuring. Importantly, the fact that the relationships between the self-esteem scale and the concurrent variables did not differ between respondents – males and females, or high and low-income respondents, suggests that the scale is measuring the same construct (and affect) amongst all the participants.

The lengthy process and multiple stages in the development of this new self-esteem scale reflect the attention paid to the scale development process. Specifically, the process has highlighted the fact that in order to measure a psychological construct, it is necessary to engage the respondents in the development of the scale; they after all the experts regarding the context in which they exist. The design, data collection

and analysis procedure were all adapted specifically for the teenage sample. This is a key contribution of this paper and a move away from the use of college student samples and the generalisation of their results to other populations (Sears, 1986; Peterson, 2001, Solomon & Peters, 2005). The identification and recruitment of an appropriate sample provide greater reliability when assessing psychological constructs amongst adolescent samples together with their conception, understanding and bases of self-esteem. For this reason, the large scale and in-depth nature of qualitative data collected with adolescents, although extremely time consuming, was deemed an essential part of the data collection process. The subjects in this study (British adolescents) were truly perceived, and treated as the experts.

Furthermore, the focus groups and elicitation techniques used within them, not only allowed the adolescents to define the concept themselves, but it also allowed a scale to be developed which was suited to adolescents in every way. For example, the four specific dimensions included in the measure, the language used in the scale items and the response format used, were all designed to suit the sample. As a result of this, the likelihood of obtaining true measures of adolescent self-esteem is greatly increased with this measure. It is necessary to investigate a construct as personal as self-esteem, through the eyes of the beholder; namely the eyes of the adolescents themselves. Furthermore, within child research in general, there is a distinct lack of the respondents' own perceptions and opinions, more often it has been the opinions of parents or significant others. As a result of this, the newly developed adolescent measure of self-esteem, consists of relevant items previously affirmed to be relevant to self-esteem and in addition, due to the extensive

qualitative work, also incorporates items which have been overlooked in past development procedures.

The reliability and internal consistency of the self-esteem scale were clearly displayed by the Cronbach's alpha values for the complete scale (0.771), as well as the four individual factors within it (from 0.678 to 0.844)⁹. These results show that the individual factors reliably assess the four dimensions of self-esteem but also that the combination of these dimensions assess a single underlying construct to which they all relate; namely adolescent self-esteem. Furthermore, the high test-retest correlation value ($r = 0.776$) displayed the stability of the measure across time. Moreover, this temporal stability also suggests that the scale measures *trait* self-esteem as opposed to *state* self-esteem. As clearly outlined by Denissen et al., (2008) "*state SE* (self-esteem) refers to temporary fluctuations within a person (e.g. across days), *trait SE* to stable individual differences..." (pg. 183, parentheses added). Therefore, the results obtained, can be confidently attributed to individual differences in self-esteem levels, rather than superficial differences caused by changes in mood or simple situational circumstances. This means that the levels of self-esteem assessed by the new scale are the 'core' levels of self-esteem amongst the adolescents and therefore, the scale is particularly suitable for comparing group differences.

A further key contribution of this paper is to introduce brand ownership as a factor of adolescent self-esteem. Giddens (1991, pg. 198) argued that "the consumption of ever-novel goods becomes in some part a substitute for the genuine development

⁹ As shown in Table 3, the social ability factor produced a value of 0.678. This is below 0.700 but the items in the factor were still considered to reliably measure social ability. This is because, as Pallant (2003) explains, scales with few items (less than 5) typically produce low Cronbach's alpha values.

of self”, and despite many authors agreeing, no previous scale considers possessions and brands as relevant to self-esteem. Unlike adults, children and adolescents live out much more of their lives in public space, where their consumption choices are subject to critical examination by peer groups. Furthermore, due to their highly social lives (school, after school clubs and various socially oriented activities), they are constantly surrounded by other adolescents and continuously compare themselves to others; they are at the final, confirmative stages of identity formation and their identity is validated through social interactions (Jenkins, 1996). Moreover, given the emotional and communicative power of brands (e.g. Barber, 2007), adolescents are particularly drawn toward them. The reasons behind this keen interest becomes clear when one considers the fragile identity of the average adolescent; they are developing their identities and thus turn to the most widely accepted, popular and expressive tools to do so; brands.

Considering the impact of consumerism on adolescents’ development and resulting self-esteem and self-worth (as noted in Isaksen & Roper, 2008), it is important that further work examines the broader implications of the teenage market on well-being and development; in Britain and in other countries. Indeed this requires appropriate scales such as the one developed in this paper, which can be used in further assessments, in part or in whole and in conjunction with other relevant measures. Although developed on a British adolescent sample, this new measure of self-esteem is likely to be suitable to other ‘western’ adolescent samples. Further work using this scale with non-British samples should include a pilot/pre-test stage which ascertains the suitability of the scale in relation to the language and context in which it is used. Indeed, data comparisons between British and non-British samples may lead to

greater clarity on the impacts of consumerism on adolescents across the developed/‘western’ consumer society; as well as those in emerging economies with growing consumerism.

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29. If someone takes the mick ¹⁰ out of me I think about it for a long time afterwards*
4. I often feel bad about things and feel depressed a lot*
16. When I look at other people I feel as though I'm not good enough*
2. When I'm with a group of people I often worry about the right things to talk about*
7. I often feel like I'm the odd one out in a group*
22. I often feel like I do everything wrong*

Table 1: Final Scale Items – Social Comparison Factor (* indicates negatively marked/reversed scored items)

¹⁰ Take the mick – British slang meaning ‘to make fun of’.

1. When I go clothes shopping I only buy good brands*
24. I usually have the latest designer labels (names/brands)*
12. I wear a lot of branded (named) clothes*
17. I feel better about myself when I am wearing clothes with a label (name/brand)*

Table 2: Final Scale Items – Brand Ownership (* indicates negatively marked/reversed scored items)

11. I am proud of my abilities/ skills
27. I believe that I can do anything if I try
28. I feel good about myself
15. There are some things that I am good at
3. I am happy with the person I am
23. I am happy with the way I look, I don't want to change anything about myself

Table 3: Final Scale Items – Self-evaluation (* indicates negatively marked/reversed scored items)

21. People would probably describe me as a sociable and outgoing person
8. People would describe me as a quiet person*
10. I am not a shy person
19. I make friends easily
9. I fit in with the people around me

Table 4: Final Scale Items – Social Ability/ extraversion (* indicates negatively marked/reversed scored items)

	Component			
Item	Self-Evaluation	Brand Ownership	Social Ability	Social Comparison Effects
11. I am proud of my abilities/ skills	.760			
27. I believe that I can do anything if I try	.743			
28. I feel good about myself	.716			
15. There are some things that I am good at	.702			
3. I am happy with the person I am	.624			
23. I am happy with the way I look, I don't want to change anything about myself	.596			
1. When I go clothes shopping I only buy good brands*		.852		
24. I usually have the latest designer labels (names/brands)*		.825		
12. I wear a lot of branded (named) clothes*		.822		
17. I feel better about myself when I am wearing clothes with a label (name/brand)*		.770		
21. People would probably describe me as a sociable and outgoing person			.746	
8. People would describe me as a quiet person*			.692	
10. I am not a shy person			.588	
19. I make friends easily			.565	
9. I fit in with the people around me			.396	
29. If someone takes the mick ¹¹ out of me I think about it for a long time afterwards*				.702
4. I often feel bad about things and feel depressed a lot*				.690
16. When I look at other people I feel as though I'm not good enough*				.642
2. When I'm with a group of people I often worry about the right things to talk about*				.611
7. I often feel like I'm the odd one out in a group*				.585
22. I often feel like I do everything wrong*				.486

¹¹ Take the mick – British slang meaning 'to make fun of'.

Table 5. Pattern matrix for the 21-Item self-esteem scale

* Negatively marked (reverse scored) items.

	Mean Score (SD)	% Variance explained	Reliability: Cronbach's Alpha
Self-Evaluation	401.75 (116.70)	28.4	.829
Brand Ownership	205.2 (98.63)	11.5	.844
Social Ability	310.95 (94.07)	8.1	.678
Social Comparison Effects	393.78 (119.89)	6.6	.760
TOTAL Scale	1311 (254.89)	54.6	.771

Table 6. - Mean score, variance explained and reliability values of the individual factors and total self-esteem scale

	HARTER (N=830)	YMS (N=266)	SCC (N=240)	BFNE (N=253)	MC-1 (N=219)	CSII (N=280)	NB (N=273)
SES	.694**	-.161**	.551**	-.554**	.102	-.187**	-.283 **
% shared variance ($r^2 \times 100$)	48.16	2.59	30.36	30.69		3.5	8

Table 7 - Correlation coefficients of relations between self-esteem and concurrent measures

**Significant at the .01 level

	HARTER (N=864)	SES (N=847)	YMS (N=278)	SCC (N=251)	BFNE (N=263)	MC-1 (N=226)	CSII (N=293)	NB (N=284)
SES with no brand items	.722**	.929**	-.057	.576**	-.539**	.055	-.049	-.276**
%shared variance (r² *100)	52.12	86.3		33.17	29.05			7.61

Table 8 - Correlation coefficients of relations between self-esteem (without brand ownership items) and concurrent measures

Figure 1 - CFA of (parcelled) four factor model of adolescent self-esteem

